

# Methods / Data B Solutions

1.  $\frac{4}{12}$  or  $\frac{1}{3}$

(A1)

[1]

2. a)

	1	2	3
1	2	3	4
2	3	4	5
3	4	5	6

(M2)

[3]

b)  $\frac{2}{9}$

(A1)

1st dice

3. a)

	1	2	3	4	5	6
7	8	9	10	11	12	13
8	9	10	11	12	13	14
9	10	11	12	13	14	15
10	11	12	13	14	15	16
11	12	13	14	15	16	17
12	13	14	15	16	17	18

2nd Dice

b)  $\frac{3}{36}$  or  $\frac{1}{12}$

(A1)

[3]

4. a)  $\frac{26}{52}$  or  $\frac{1}{2}$

(A1)

b)  $\frac{8}{52}$  or  $\frac{2}{13}$

(A1)

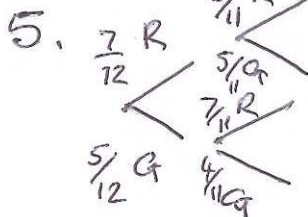
c)  $\frac{31}{52}$  (All evens + 1, 3, 5, 9 diamonds)

(A1)

d)  $\frac{32}{52}$  or  $\frac{8}{13}$  (26 black + 6 red pictures)

(A1)

[4]



(a)  $\frac{7}{12} \times \frac{6}{11} = \frac{7}{22}$

(M1)

(A1)

(b) RG or GR

$= \frac{7}{12} \times \frac{5}{11} + \frac{5}{12} \times \frac{7}{11}$

(M)

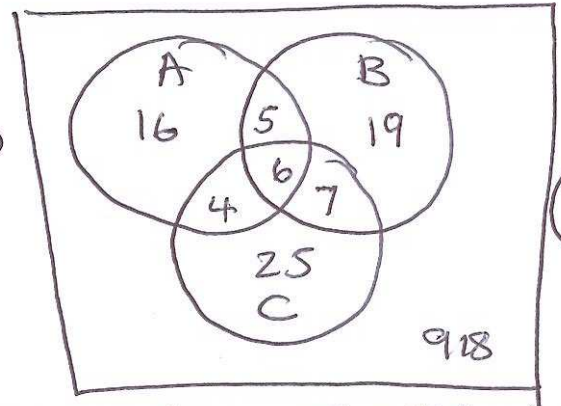
$= \frac{70}{132}$  or  $\frac{35}{66}$

(A1)

[4]

6.

(a)



(M3)

(b)  $918/1000$  or  $459/500$

(A1)

(c) None or 1

$\Rightarrow 918 + 16 + 19 + 25$

(M1)

$= \frac{978}{1000}$  or  $\frac{489}{500}$

(A1)

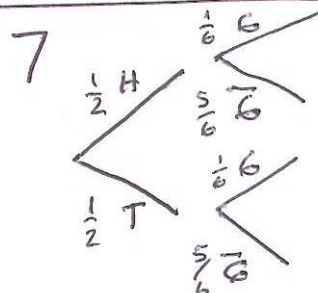
(d)  $16 + 19 + 25$  had one defect

$\Rightarrow \frac{19}{60}$

(M1)

(A1)

[8]



(B = not G)

a)  $\frac{1}{2} \times \frac{1}{6} = \frac{1}{12}$

(M1)

(A1)

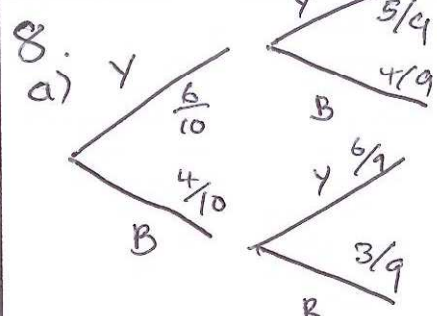
b)  $P(\text{Prime}) = \frac{1}{2}$

(M1)

$\Rightarrow \frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

(A1)

[4]



(M2)

b)  $\frac{6}{10} \times \frac{5}{9} = \frac{30}{90} = \frac{1}{3}$

(M1)

(A1)

c)  $\frac{4}{10} \times \frac{3}{9} = \frac{12}{90} = \frac{2}{15}$

(M1)

(A1)

d)  $\frac{4}{10} \times \frac{6}{9} = \frac{24}{90} = \frac{4}{15}$

(M1)

(A1)

[8]

(Marks on revision sheet not generous - use these!)